

REMARKS

Reconsideration and allowance of the subject application are respectfully requested. Claims 1-19 remain pending, claims 1 and 7 being independent. In this Reply, Applicants have amended independent claims 1 and 7.

Priority Rejection

Claims 1-7 stand rejected under 35 U.S.C. § 102 as allegedly being anticipated by U.S. Patent No. 5,594,322 to Rozman et al. (hereinafter “Rozman”). This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed.

Independent claim 1 is directed to a starter/generator system for an engine. The starter/generator system of claim 1 comprises: a starter/generator including an exciter stator with a DC winding; and a multi-use controller, for providing AC power to the exciter stator during a start mode of operation and DC power to the exciter stator during a generate mode of operation, such that the multi-use controller is configured to operate as an exciter power supply during the start mode and as a generator control unit during the generate mode. Claim 1 specifies that the multi-use controller comprises a power conversion unit for converting input DC power to the AC power provided to the exciter stator during the start mode of operation and for converting DC input power to the DC power provided to the exciter stator during the generator mode; and a switching driver. The switching driver is configured to drive switching elements of the power conversion unit based on start control signals received during the start mode and based on generate control signals received during the generate mode, such that the switching driver is configured to output first switch driving signals for causing the power conversion unit to perform DC-AC conversion upon receiving start control signals and to output second switch driving signals for causing the power conversion unit to perform DC-DC conversion upon receiving generate control signals.

As discussed in the Reply dated November 9, 2005, Rozman discloses a brushless, synchronous generator system 10 that includes: a generator 12; a voltage regulator 40; and a

power conversion system 54. Fig. 1; col. 5, lines 37-66. During a generating mode of operation, the voltage regulator 40 provides DC power to a field winding 28 disposed in a stator 26 of the generator 10. In a start mode of operation, an exciter power converter 76 of the power conversion system 54 provides AC power to the exciter field winding 28. Therefore, the starter/generator system of Rozman clearly utilizes separate generator control (voltage regulator 40) and exciter power supply (exciter power converter 76).

With reference to the claimed switching driver element of the multi-use controller in the starter/generator system of claim 1, page 5 of the Office Action asserts that element 70 of Rozman corresponds to this feature. Applicants note, however, that element 70, shown in Fig. 2, is merely an AC/DC converter, which is not configured to perform the start mode and generate mode switch driving functions specified in claim 1.

In maintaining the rejection under 35 U.S.C. § 102, the Office Action suggests that the asserted differences between the system of claim 1 and that of Rozman relate to "intended use" (see e.g., Office Action, paragraph 3), do not relate to structural characteristics of the claimed multi-use controller (see e.g., Office Action, paragraph 6), and relate merely to routinely integrating known elements (see e.g., Office Action, paragraph 7).

Applicants respectfully submit that the features of the claimed multi-use controller recited within the body of claim 1 that distinguish over Rozman do not merely relate to an intended field of use, and instead define functional characteristics of the controller. These aspects of the claimed multi-use controller define an apparatus that is neither taught nor inherent in Rozman. In an effort to expedite prosecution, Applicants have further amended independent claim 1 to emphasize aspects of the multi-use controller that define its arrangement, thereby further distinguishing over the applied prior art. More specifically, Rozman fails to disclose or suggest a multi-use controller having a power conversion unit and switching driver arrangement as now recited in claim 1.

Regarding the Examiner's suggestion that the claimed invention controller merely involves "putting together or integrating" prior art components, Applicants initially note that this reasoning does not support a finding of anticipation, and instead appears to relate to obviousness, which has not been asserted. Furthermore, the suggestion that the presently claimed invention is merely a routine integration of known elements is a mischaracterization that is not supported by the record.

According to MPEP § 2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claims." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913 (Fed. Cir. 1989).

At least in view of the above, Applicants respectfully submit that Rozman fails to anticipate claim 1 or any claim depending therefrom. Furthermore, Applicants respectfully submit that claim 7 and claims depending therefrom define over Rozman based on similar reasoning to that set forth above with regard to claim 1.

With specific reference to dependent claim 13, which specifies that the controller of claim 1 includes: a logic unit for generating an operation mode setting signal; and a switch for selectively providing the start control signals to the switching driver during the start mode of operation and the generate control signals to the switching driver during the generate mode of operation, the Office Action asserts on page 5 that the switch 42 of Rozman performs this function. Applicants, however, find no teaching or suggestion in Rozman that switch 42 performs this function.

In view of the above, Applicants respectfully request reconsideration and withdrawal of the Examiner's rejection under 35 U.S.C. § 102.

Application No. 10/649,548
Amendment dated May 19, 2006
Reply to Office Action of February 24, 2006

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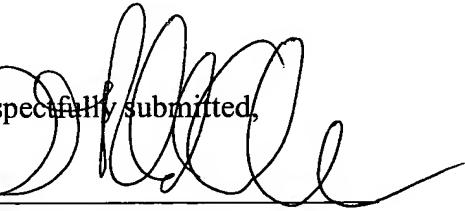
CONCLUSION

If the Examiner has any questions concerning this application, the Examiner is requested to contact the undersigned at the telephone number of (703) 205-8000.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

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